

Mapping on MediaWiki

Jeroen De Dauw, 2010-9-18, SMWCon fall 2010, Amsterdam

Presentation outline

- Maps
 - Concept
 - Coordinates
 - Geocoding
 - Displaying maps
 - Customizing maps
- Semantic Maps
 - ...

Presentation outline

- Maps
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- Semantic Maps
 - Concept
 - Coordinate data type
 - Queries
 - Forms
 - And even more awesomeness

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Maps

MediaWiki extension

- Uses [Validator](#)

Features:

- [Coordinate handling](#)
- [Geocoding](#)
- [Visual display of geo data](#)
- [Support for multiple mapping services](#)
- Very flexible and [customizable](#)



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Maps

Coordinates

- Floats
 - Non-directional: 55.7557860, -37.6176330
 - Directional: 55.7557860 N, 37.6176330 W
- DMS
 - Non-directional: 55°45'06", -37°37'04"
 - Directional: 55°45'06"N, 37°37'04"W
- Decimal Degress
- Decimal Minutes



Maps

Coordinate parser functions

- **#Coordinates**: formatting
- **#Geodistance**: distance between 2 points
- **#Finddestination**: point from starting point, bearing and distance



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Geocoding

- Auto-detection of addresses for all locations
- `#Geocode` parser function



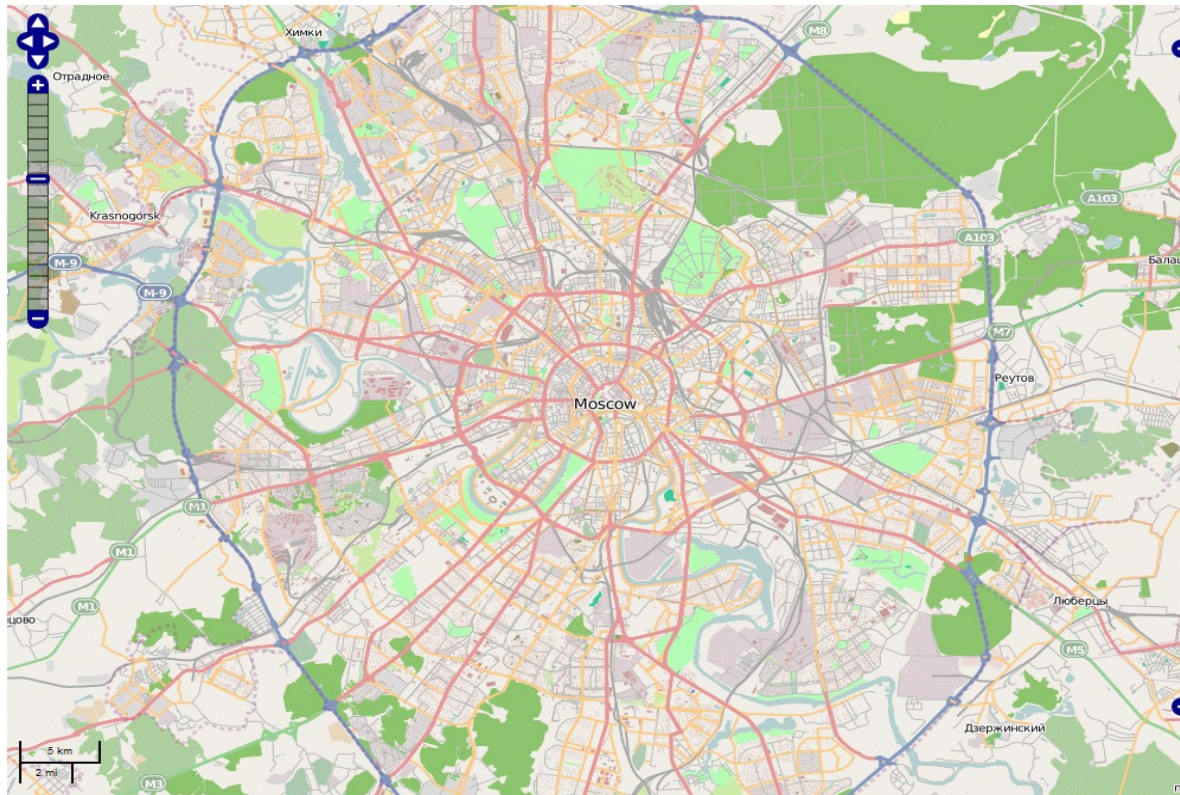
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Maps

Displaying maps

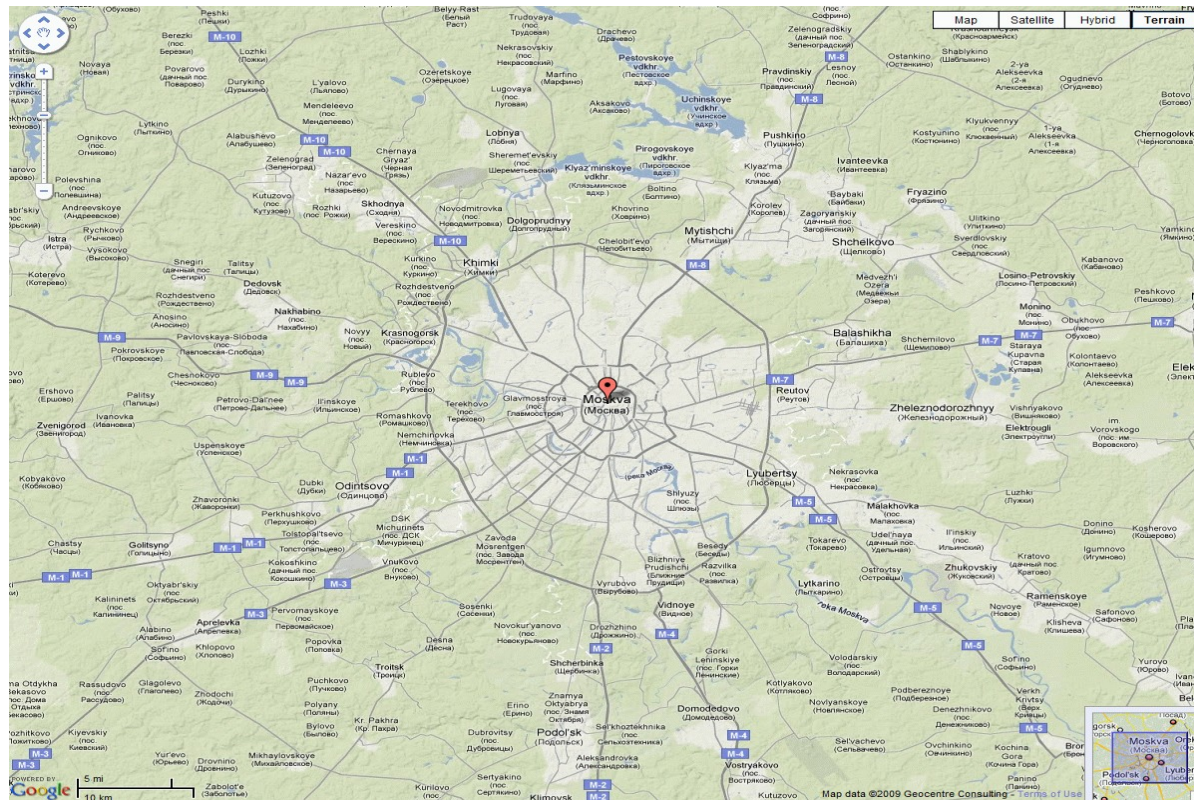
- `#display_map` for plain maps



Maps

Displaying maps

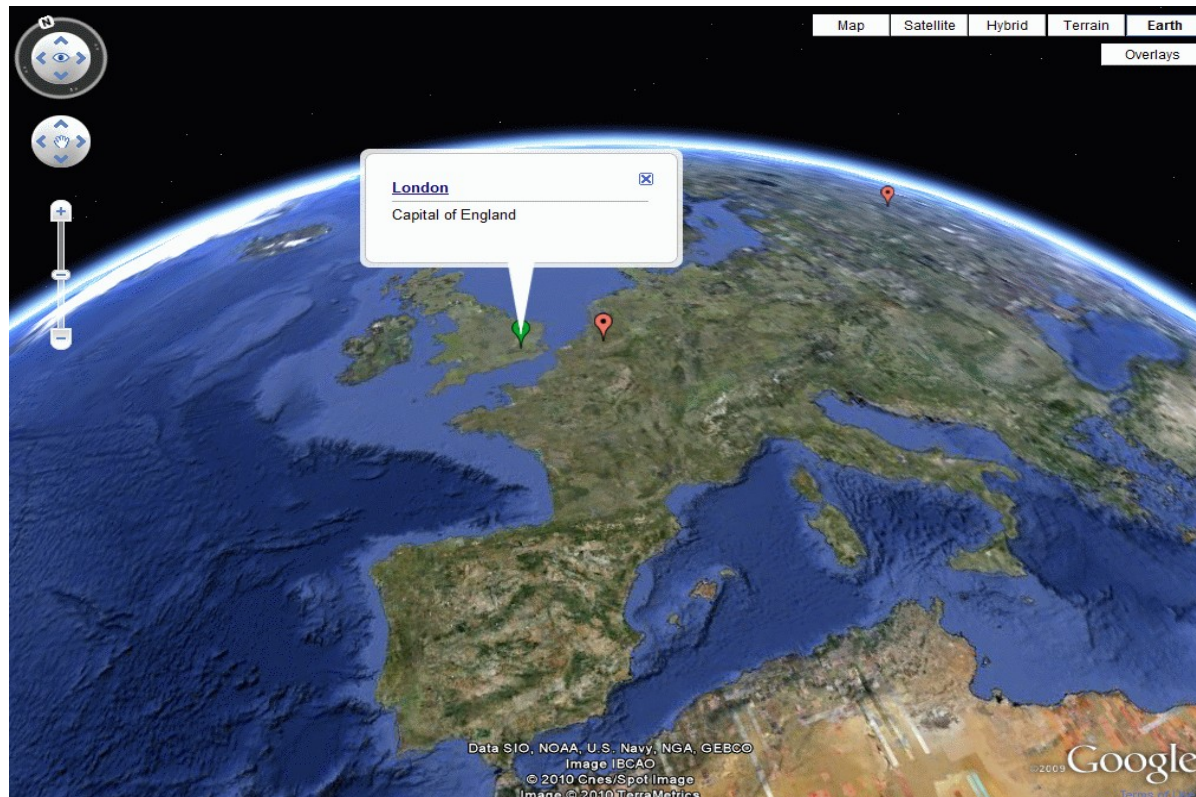
- `#display_point(s)` for maps with markers



Maps

Displaying maps

- `#display_point(s)` for maps with markers



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Maps

Customizing maps

- Available options depend on
 - The used parser hook (or feature)
 - The [mapping service](#)
 - A combination of both
- All default values can be [configured](#)



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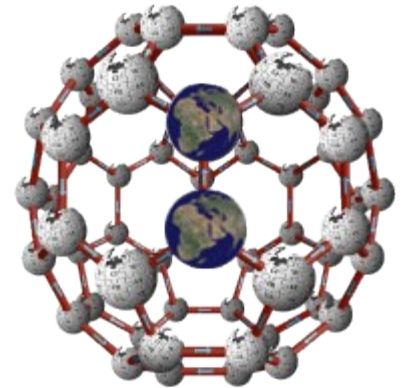
Semantic Maps

MediaWiki extension

- Uses [Maps](#) & [Semantic MediaWiki](#)

Features:

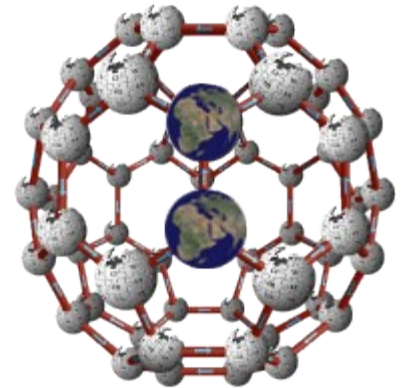
- [Semantic handling of coordinates](#)
- [Coordinate aggregation and visualization](#)
- [GUI insertion and modification of coordinates](#)
- All the awesomeness [Maps](#) has



Semantic Maps

Mapping services

- “Identical” to the ones of Maps
 - Google Maps
 - Yahoo! Maps
 - OpenLayers



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Semantic Maps

Geographical Coordinates datatype

- Semantic datatype based on Maps
- Queries on latitude or longitude
 - Distance query
- Planned spatial extensions support

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Semantic Maps

Result formats

- Documentation
- Examples

```
{{  
#ask: [[Category:City]] [[located in::Germany]]  
| ?population  
| ?area#km2 = Size in km2  
| ?coordinates  
| format=map  
}}
```



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Semantic Maps

Form Inputs

- Semantic Forms hook
- Allows
 - Coordinate insertion and editing
 - Forms => no wiki text needed!

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Future Plans

Maps and Semantic Maps 0.7.x

- Tag extension support for all parser functions
- Images as layers
- Validator 0.4

Future Plans

Awesome stuff that's not there yet!

...and needs funding

- Full Google Maps V3 and OSM support
- KML, GIS, ...
- Static maps
- Marker clustering
- Routes
- >9000 others o_O

References

- Maps documentation:

mapping.referata.com/wiki/Maps

- Semantic Maps documentation:

mapping.referata.com/wiki/Semantic_Maps

- Contact

mediawiki.org/wiki/User:Jeroen_De_Dauw

- Commercial support

WikiWorks 
MediaWiki consulting

